

UW-99501.ST25.txt
SEQUENCE LISTING

<110> Cox, Michael
Lusetti, Shelley
Eggler, Aimee

<120> RecA Mutants

<130> 960296.99501

<160> 5

<170> PatentIn version 3.2

<210> 1

<211> 335

<212> PRT

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Tyr	Gly	Pro	Glu	Ser	Ser	Gly	Lys	Thr	Thr	Leu	Thr	Leu	Gln	Val	Ile
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				85					90					95	

His	Ala	Leu	Asp	Pro	Ile	Tyr	Ala	Arg	Lys	Leu	Gly	Val	Asp	Ile	Asp
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UW-99501.ST25.txt

Asn Leu Leu Cys Ser Gln Pro Asp Thr Gly Glu Gln Ala Leu Glu Ile
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Cys Asp Ala Leu Ala Arg Ser Gly Ala Val Asp Val Ile Val Val Asp
 130 135 140

Ser Val Ala Ala Leu Thr Pro Lys Ala Glu Ile Glu Gly Glu Ile Gly
 145 150 155 160

Asp Ser His Met Gly Leu Ala Ala Arg Met Met Ser Gln Ala Met Arg
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Lys Leu Ala Gly Asn Leu Lys Gln Ser Asn Thr Leu Leu Ile Phe Ile
 180 185 190

Asn Gln Ile Arg Met Lys Ile Gly Val Met Phe Gly Asn Pro Glu Thr
 195 200 205

Thr Thr Gly Gly Asn Ala Leu Lys Phe Tyr Ala Ser Val Arg Leu Asp
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Ile Arg Arg Ile Gly Ala Val Lys Glu Gly Glu Asn Val Val Gly Ser
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Glu Thr Arg Val Lys Val Val Lys Asn Lys Ile Ala Ala Pro Phe Lys
 245 250 255

Gln Ala Glu Phe Gln Ile Leu Tyr Gly Glu Gly Ile Asn Phe Tyr Gly
 260 265 270

Glu Leu Val Asp Leu Gly Val Lys Glu Lys Leu Ile Glu Lys Ala Gly
 275 280 285

Ala Trp Tyr Ser Tyr Lys Gly Glu Lys Ile Gly Gln Gly Lys Ala Asn
 290 295 300

UW-99501.ST25.txt

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<212> DNA
<213> Escherichia coli

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UW-99501.ST25.txt

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<213> Escherichia coli

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Arg Ser Met Asp Val Lys Thr Ile Ser Thr Gly Ser Leu Ser Leu Asp
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Tyr Gly Pro Glu Ser Ser Gly Lys Thr Thr Leu Thr Leu Gln Val Ile
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Ala Ala Ala Gln Arg Glu Gly Lys Thr Cys Ala Phe Ile Asp Ala Glu
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UW-99501.ST25.txt

His Ala Leu Asp Pro Ile Tyr Ala Arg Lys Leu Gly Val Asp Ile Asp
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Cys Asp Ala Leu Ala Arg Ser Gly Ala Val Asp Val Ile Val Val Asp
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Ser Val Ala Ala Leu Thr Pro Lys Ala Glu Ile Glu Gly Glu Ile Gly
145 150 155 160

Asp Ser His Met Gly Leu Ala Ala Arg Met Met Ser Gln Ala Met Arg
165 170 175

Lys Leu Ala Gly Asn Leu Lys Gln Ser Asn Thr Leu Leu Ile Phe Ile
180 185 190

Asn Gln Ile Arg Met Lys Ile Gly Val Met Phe Gly Asn Pro Glu Thr
195 200 205

Thr Thr Gly Gly Asn Ala Leu Lys Phe Tyr Ala Ser Val Arg Leu Asp
210 215 220

Ile Arg Arg Ile Gly Ala Val Lys Glu Gly Glu Asn Val Val Gly Ser
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Glu Thr Arg Val Lys Val Val Lys Asn Lys Ile Ala Ala Pro Phe Lys
245 250 255

Gln Ala Glu Phe Gln Ile Leu Tyr Gly Glu Gly Ile Asn Phe Tyr Gly
260 265 270

Glu Leu Val Asp Leu Gly Val Lys Glu Lys Leu Ile Glu Lys Ala Gly
275 280 285

UW-99501.ST25.txt

Ala Trp Tyr Ser Tyr Lys Gly Glu Lys Ile Gly Gln Gly Lys Ala Asn
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Lys Lys Val Arg Glu Leu Leu Leu Ser Asn Pro Asn Ser Thr Pro
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<212> DNA
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cgtatcgctg agatctacgg accggaatct tccggtaaaa ccacgctgac gctgcaggtg 2
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gacaccggcg agcaggcact ggaaatctgt gacgccctgg cgcgttcttg cgcagtagac 4
20

gttatcgctg ttgactccgt ggcggcactg acgccgaaag cggaaatcga aggcgaaatc 4
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ggcgactctc acatgggcct tgcggcacgt atgatgagcc aggcgatgcg taagctggcg 5
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cagggtaaag cgaatgcgac tgcttggtg aaagataacc cggaaccgc gaaagagatc      9
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<210> 5
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Ile Ala Leu Gly Ala Gly Gly Leu Pro Met Gly Arg Ile Val Glu Ile
 50 55 60

Tyr Gly Pro Glu Ser Ser Gly Lys Thr Thr Leu Thr Leu Gln Val Ile

65

70

75

80

Ala Ala Ala Gln Arg Glu Gly Lys Thr Cys Ala Phe Ile Asp Ala Glu
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His Ala Leu Asp Pro Ile Tyr Ala Arg Lys Leu Gly Val Asp Ile Asp
 100 105 110

Asn Leu Leu Cys Ser Gln Pro Asp Thr Gly Glu Gln Ala Leu Glu Ile
 115 120 125

Cys Asp Ala Leu Ala Arg Ser Gly Ala Val Asp Val Ile Val Val Asp
 130 135 140

Ser Val Ala Ala Leu Thr Pro Lys Ala Glu Ile Glu Gly Glu Ile Gly
 145 150 155 160

Asp Ser His Met Gly Leu Ala Ala Arg Met Met Ser Gln Ala Met Arg
 165 170 175

Lys Leu Ala Gly Asn Leu Lys Gln Ser Asn Thr Leu Leu Ile Phe Ile
 180 185 190

Asn Gln Ile Arg Met Lys Ile Gly Val Met Phe Gly Asn Pro Glu Thr
 195 200 205

Thr Thr Gly Gly Asn Ala Leu Lys Phe Tyr Ala Ser Val Arg Leu Asp
 210 215 220

Ile Arg Arg Ile Gly Ala Val Lys Glu Gly Glu Asn Val Val Gly Ser
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Glu Thr Arg Val Lys Val Val Lys Asn Lys Ile Ala Ala Pro Phe Lys
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Gln Ala Glu Phe Gln Ile Leu Tyr Gly Glu Gly Ile Asn Phe Tyr Gly

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265

270

Glu Leu Val Asp Leu Gly Val Lys Glu Lys Leu Ile Glu Lys Ala Gly
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Ala Trp Tyr Ser Tyr Lys Gly Glu Lys Ile Gly Gln Gly Lys Ala Asn
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Ala Thr Ala Trp Leu Lys Asp Asn Pro Glu Thr Ala Lys Glu Ile Glu
305 310 315 320

Lys Lys Val Arg Glu Leu Leu Leu Ser Asn Pro Asn Ser Thr Pro Asp
325 330 335

Phe Ser Val Asp Asp Ser Glu Gly Val Ala Glu Thr Asn Glu Asp Phe
340 345 350

SEQUENCE LISTING

<110> Cox, Michael

Lusetti, Shelley

Eggler, Aimee

<120> RecA Mutants

<130> 960296.99501

<160> 5

<170> PatentIn version 3.2

<210> 1

<211> 335

<212> PRT

<213> Escherichia coli

<400> 1

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Ile Glu Lys Gln Phe Gly Lys Gly Ser Ile Met Arg Leu Gly Glu Asp

20 25 30

Arg Ser Met Asp Val Glu Thr Ile Ser Thr Gly Ser Leu Ser Leu Asp

35 40 45

Ile Ala Leu Gly Ala Gly Gly Leu Pro Met Gly Arg Ile Val Glu Ile

50 55 60

Tyr Gly Pro Glu Ser Ser Gly Lys Thr Thr Leu Thr Leu Gln Val Ile
65 70 75 80

Ala Ala Ala Gln Arg Glu Gly Lys Thr Cys Ala Phe Ile Asp Ala Glu
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His Ala Leu Asp Pro Ile Tyr Ala Arg Lys Leu Gly Val Asp Ile Asp
 100 105 110

Asn Leu Leu Cys Ser Gln Pro Asp Thr Gly Glu Gln Ala Leu Glu Ile
 115 120 125

Cys Asp Ala Leu Ala Arg Ser Gly Ala Val Asp Val Ile Val Val Asp
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Ser Val Ala Ala Leu Thr Pro Lys Ala Glu Ile Glu Gly Glu Ile Gly
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Asp Ser His Met Gly Leu Ala Ala Arg Met Met Ser Gln Ala Met Arg
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Lys Leu Ala Gly Asn Leu Lys Gln Ser Asn Thr Leu Leu Ile Phe Ile
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Asn Gln Ile Arg Met Lys Ile Gly Val Met Phe Gly Asn Pro Glu Thr
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Thr Thr Gly Gly Asn Ala Leu Lys Phe Tyr Ala Ser Val Arg Leu Asp

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Ile Arg Arg Ile Gly Ala Val Lys Glu Gly Glu Asn Val Val Gly Ser

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Glu Thr Arg Val Lys Val Val Lys Asn Lys Ile Ala Ala Pro Phe Lys

245 250 255

Gln Ala Glu Phe Gln Ile Leu Tyr Gly Glu Gly Ile Asn Phe Tyr Gly

260 265 270

Glu Leu Val Asp Leu Gly Val Lys Glu Lys Leu Ile Glu Lys Ala Gly

275 280 285

Ala Trp Tyr Ser Tyr Lys Gly Glu Lys Ile Gly Gln Gly Lys Ala Asn

290 295 300

Ala Thr Ala Trp Leu Lys Asp Asn Pro Glu Thr Ala Lys Glu Ile Glu

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35 40 45

Ile Ala Leu Gly Ala Gly Gly Leu Pro Met Gly Arg Ile Val Glu Ile

50 55 60

Tyr Gly Pro Glu Ser Ser Gly Lys Thr Thr Leu Thr Leu Gln Val Ile

65 70 75 80

Ala Ala Ala Gln Arg Glu Gly Lys Thr Cys Ala Phe Ile Asp Ala Glu

85 90 95

His Ala Leu Asp Pro Ile Tyr Ala Arg Lys Leu Gly Val Asp Ile Asp

100 105 110

Asn Leu Leu Cys Ser Gln Pro Asp Thr Gly Glu Gln Ala Leu Glu Ile

115 120 125

Cys Asp Ala Leu Ala Arg Ser Gly Ala Val Asp Val Ile Val Val Asp
130 135 140

Ser Val Ala Ala Leu Thr Pro Lys Ala Glu Ile Glu Gly Glu Ile Gly
145 150 155 160

Asp Ser His Met Gly Leu Ala Ala Arg Met Met Ser Gln Ala Met Arg
165 170 175

Lys Leu Ala Gly Asn Leu Lys Gln Ser Asn Thr Leu Leu Ile Phe Ile
180 185 190

Asn Gln Ile Arg Met Lys Ile Gly Val Met Phe Gly Asn Pro Glu Thr
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Thr Thr Gly Gly Asn Ala Leu Lys Phe Tyr Ala Ser Val Arg Leu Asp
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Ile Arg Arg Ile Gly Ala Val Lys Glu Gly Glu Asn Val Val Gly Ser
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Glu Thr Arg Val Lys Val Val Lys Asn Lys Ile Ala Ala Pro Phe Lys
245 250 255

Gln Ala Glu Phe Gln Ile Leu Tyr Gly Glu Gly Ile Asn Phe Tyr Gly
260 265 270

Glu Leu Val Asp Leu Gly Val Lys Glu Lys Leu Ile Glu Lys Ala Gly

275 280 285

Ala Trp Tyr Ser Tyr Lys Gly Glu Lys Ile Gly Gln Gly Lys Ala Asn

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Ala Thr Ala Trp Leu Lys Asp Asn Pro Glu Thr Ala Lys Glu Ile Glu

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<213> Escherichia coli

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Arg Ser Met Asp Val Glu Thr Ile Ser Thr Gly Ser Leu Ser Leu Asp

35 40 45

Ile Ala Leu Gly Ala Gly Gly Leu Pro Met Gly Arg Ile Val Glu Ile
50 55 60

Tyr Gly Pro Glu Ser Ser Gly Lys Thr Thr Leu Thr Leu Gln Val Ile
65 70 75 80

Ala Ala Ala Gln Arg Glu Gly Lys Thr Cys Ala Phe Ile Asp Ala Glu
85 90 95

His Ala Leu Asp Pro Ile Tyr Ala Arg Lys Leu Gly Val Asp Ile Asp
100 105 110

Asn Leu Leu Cys Ser Gln Pro Asp Thr Gly Glu Gln Ala Leu Glu Ile
115 120 125

Cys Asp Ala Leu Ala Arg Ser Gly Ala Val Asp Val Ile Val Val Asp
130 135 140

Ser Val Ala Ala Leu Thr Pro Lys Ala Glu Ile Glu Gly Glu Ile Gly
145 150 155 160

Asp Ser His Met Gly Leu Ala Ala Arg Met Met Ser Gln Ala Met Arg
165 170 175

Lys Leu Ala Gly Asn Leu Lys Gln Ser Asn Thr Leu Leu Ile Phe Ile
180 185 190

Asn Gln Ile Arg Met Lys Ile Gly Val Met Phe Gly Asn Pro Glu Thr
195 200 205

Thr Thr Gly Gly Asn Ala Leu Lys Phe Tyr Ala Ser Val Arg Leu Asp
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Ile Arg Arg Ile Gly Ala Val Lys Glu Gly Glu Asn Val Val Gly Ser
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Glu Thr Arg Val Lys Val Val Lys Asn Lys Ile Ala Ala Pro Phe Lys
245 250 255

Gln Ala Glu Phe Gln Ile Leu Tyr Gly Glu Gly Ile Asn Phe Tyr Gly
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Glu Leu Val Asp Leu Gly Val Lys Glu Lys Leu Ile Glu Lys Ala Gly
275 280 285

Ala Trp Tyr Ser Tyr Lys Gly Glu Lys Ile Gly Gln Gly Lys Ala Asn
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Ala Thr Ala Trp Leu Lys Asp Asn Pro Glu Thr Ala Lys Glu Ile Glu
305 310 315 320

Lys Lys Val Arg Glu Leu Leu Leu Ser Asn Pro Asn Ser Thr Pro Asp
325 330 335

Phe Ser Val Asp Asp Ser Glu Gly Val Ala Glu Thr Asn Glu Asp Phe

340

345

350